AMENDMENT TO CLAIMS

VERSION WITH MARKINGS TO SHOW CHANGES MADE

4. (Amended) The composition in accordance with claim 1, wherein the naturally occurring substrate not including gelatin is a galactose-rich polysaccharide comprising mainly galactose residues and derivatized galactose residues.

6. (Amended) A composition of matter comprising a [defined] dispersion of isolated lactoferrin immibolized on a naturally occurring substrate via the N-terminus region of the lactoferrin, and native lactoferrin.

10. (Amended) The composition in accordance with claim 6, wherein the composition comprises about 1 % [wdvol] wt/vol immobilized lactoferrin and about 1 % wt/vol native lactoferrin.

14. (Amended) A composition of matter comprising an aqueous buffer solution containing a physiologically acceptable acid selected from the group consisting of oxalic acid, ethylenediamine tetraacetic acid, carbonic acid, and citric acid; a physiologically acceptable base; and a physiologically acceptable salt selected from the group consisting of calcium chloride, potassium chloride, and sodium chloride, wherein the ratio of acid to base to salt is 0.1 to 0.0001M (acid) : 1 to 0.001M (base) : 10 to 0.01M (salt) and containing a mixture of native lactoferrin and isolated lactoferrin immobilized on a galactose-rich polysaccharide comprising mainly galactose residues and derivatized galactose residues, collagen, gelatin, fibronectin, casein, mucin, heparan-sulfate, carrageenan, deoxyribonucleic acid, adenosine triphosphate or a triglyceride via the N-terminus region of the lactoferrin, in a native lactoferrin to isolated immobilized lactoferrin molar ratio of from about 1:1 to about 1:5 and in a concentration of from about 0.001 to about 2.5 % wt/vol.

18. (Amended) A method for reducing the microbial contamination of a composition subject to microbial contamination by a microbe, comprising: treating the composition with a sufficient amount of isolated lactoferrin immobilized on a naturally occurring substrate via the N-terminus region of the lactoferrin to reduce microbial[.] contamination.

40. (Amended) A method for inhibiting the microbial contamination of a composition subject to microbial contamination comprising treating the composition with an aqueous buffer solution containing a physiologically acceptable acid selected from the group consisting of oxalic acid, ethylenediamine tetraacetic acid, carbonic acid, and citric acid; a physiologically acceptable base; and a physiologically acceptable salt selected from the group consisting of calcium chloride, potassium chloride, and sodium chloride, wherein the ratio of acid to base to salt is 0.1 to 0.0001M (acid): 1 to 0.001M (base): 10 to 0.01M (salt) and containing a mixture of native lactoferrin and <u>isolated</u> lactoferrin immobilized on a galactose-rich polysaccharide comprising mainly galactose residues and derivatized galactose residues, collagen, gelatin, fibronectin, casein, mucin, heparan-sulfate, carrageenan, deoxyribonucleic acid, adenosine triphosphate or a triglyceride via the N-terminus region of the lactoferrin, in a native lactoferrin to <u>isolated</u> immobilized lactoferrin molar ratio of from about 1:1 to about 1:5 and in a concentration of from about 0.001 to about 2.5 % wt/vol.

51. (Amended) The method in accordance with claim 40, wherein the ratio of acid to base to salt is [0.01-0.001M] <u>0.01 to 0.001M</u> (acid) : 0.1 to 0.01M (base) : 1 to 0.1M(salt).

70. (Amended) A method for reducing the microbial contamination of a meat product subject to microbial contamination by a microbe, comprising: applying to the meat product a composition containing a physiologically acceptable acid selected from the group

consisting of oxalic acid, ethylenediamine tetraacetic acid, carbonic acid, and citric acid; a physiologically acceptable base; and a physiologically acceptable salt selected from the group consisting of calcium chloride, potassium chloride, and sodium chloride, wherein the molar ratio of acid to base to salt is 0.1 to 0.0001 (acid) : 1 to 0.001 (base) : 10 to 0.01 (salt) and containing a mixture of native lactoferrin and isolated lactoferrin immobilized on a galactose-rich polysaccharide comprising mainly galactose residues and derivatized galactose residues, collagen, gelatin, fibronectin, casein, mucin, heparan-sulfate, carrageenan, deoxyribonucleic acid, adenosine triphosphate or a triglyceride via the N-terminus region of the lactoferrin, in a native lactoferrin to isolated immobilized lactoferrin molar ratio of from about 1:1 to about 1:5 and in a concentration of from about 0.001 to about 2.5 % wt/vol.

83. (Amended) The method of claim 82, wherein species is *Clostridium perfringens*, *Clostridium* [*diffccile*] *difficile*, *Clostridium botulinum*, or *Clostridium tetani*.